

BLIZNETS, V.

Work of State Bank branches under the new conditions of agricultural administration. Den. i kred. 21 no.10:43-49 O '63. (MIRA 16:10)

1. Nachal'nik upravleniya finansirovaniya i kreditovaniya sel'skogo khozyaystva Belorusskoy respublikanskoy kontory Gosbanka.

BLIZNETS, V. [Blyznets', V.]

Miracle of Sorochintsy. Znan. ta pratsia no.5:19-20 My '63.
(MIRA 16:6)

(Velikiye Sorochintsy—Agricultural machinery—
Design)

BLIZNETSOV, N.A., inshener-kapitan

What is preventing us from improving our knowledge in the technical
field? Vest.Vozd.M. no.3:84-85 Mr '60. (MIRA 13:9)
(Aeriatrics--Study and teaching)

BLIZNETSOV, Ye. Ya.

The article, "On the Therapeutic Application of Cystine in Some Psychic Disease," by Ye. Ya. Bliznetsov, Psychoneurological Clinical Hospital imeni Kashchenko (A. L. Andreyev, senior physician), reports the results of the clinical application of cystine in the therapy of various forms of schizophrenia. The investigation established that cystine is effective in the therapy of schizophrenia, especially in patients suffering from the hallucination-paranoid and paranoid forms of the disease. It was further established that cystine can be applied successfully in lingering cases of the disease when all other means of therapy have been unsuccessful. Cystine was found to be effective also in cases of schizophrenia in older persons, where it is accompanied by vascular changes and the psychic disorders characteristic to these changes. (Trudy Konferentsii po Proizvodstvu i Ispol'zovaniyu Aminokislot v Meditsine [Works of the Conference on the Production and Application of Amino Acids in Medicine], Moscow, University Publishing House, 1956, pp 53-63) (U)

Sum in 1967

BLIZNETSOV, YE. Ya.

USSR/Pharmacology - Toxicology, Aminoacid Compounds.

U-7

Abs Jour : Ref Zhur - Biol., No 3, 1958, 13062

Author : Bliznetsov, E.Ya.

Inst :

Title : A Trial of Cystine in the Treatment of Schizophrenia.

Orig Pub : Zh. nevropatol. i psikiatrii, 1957, prilozheniye, 84-85.

Abstract : Eighty-six schizophrenics (mostly chronic) were treated with cystine alone or in combination with other amino-acids (methionine, glutamic acid) or insulin. Cystine was given intramuscularly as a 4-8% solution every other day (15 injections on the average); at times, additional amounts of 0.25-0.5 ml. were given b.i.d. or t.i.d. orally. At the onset many patients showed an exacerbation of psychic symptomatology which was controlled by small doses of sodium bromide. Of 57 patients treated with cystine alone, 23 improved significantly and 19 showed improvement while in the hospital. During treatment there

Card 1/2

Psikhonevrologicheskaya bol'nitsa imeni Kashchenko (glavnyy vrach - kandidat meditsinskikh nauk A. L. Andreyev). Moskva.

BLIZNETSOVA, M.V.

BLIZNETSOVA, M.V. (Leningrad)

Treatment of suppurative mastitis in outpatient departments.

Sov.med. 21 no.11:117-122 N '57.

(MIRA 11:3)

(MASTITIS, ther.

suppurative)

17(2)

SOV/177-58-1-20/25

AUTHOR: Bliznetsova, M.V., Colonel of the Medical Corps

TITLE: Experience in Using Bicillin in Certain Acute Purulent Surgical Diseases (Opyt primeneniya bitsillina pri nekotorykh ostrykh gnoynykh khirurgicheskikh zabolevaniyakh)

PERIODICAL: Voenno-meditsinskiy zhurnal, 1958, Nr 1, pp 82 - 84 (USSR)

ABSTRACT: Based on examinations of patients in the VMOLA polyclinic, the author indicates that a single intramuscular bicillin injection gives a therapeutic penicillin concentration in the blood over a period of 7 - 12 days. A local bicillin injection reduces punctures to a minimum and guarantees a high penicillin concentration in the inflammation focus and the blood

Card 1/2

SOV/177-58-1-20/25

Experience in Using Bicillin in Certain Acute Purulent Surgical
Diseases

over a 5 - 10 days period. In serious cases, bicillin
administration does not exclude surgery. The author
recommends a postoperative injection of large bicillin
doses into the inflamed and infiltrated tissue.

Card 2/2

BLIZNICHENKO, A.G.

YANOVICH, T.D.; ~~BLIZNICHENKO, A.G.~~; ZARUBINA, L.V.; MSTIBOVSKIY, S.A.;
BERKOVICH, A.I.; DUSHEVIN, I.P.

Leptospira canicola infections in one of the precincts of Rostov-
on-Don. Zhur. mikrobiol. epid. i immun 28 no.2:100-104 F '57
(MLRA 10:4)

1. Iz Instituta epidemiologii, mikrobiologii i gigiyeny,
Gorodskoy i rayonnoy sanitarno-epidemiologicheskoy stantsii
Rostova-na-Donu.

(LEPTOSPIROSIS, epidemiol.

Leptospira canicola infect. in Russia)

BLIZNICHENKO, S.I.; GURARI, F.G.; DOLININA, T.V.; TRUSHKOVA, L.Ya.

Characteristics of the Lokosovo series in the middle Ob' Valley.
Trudy SNIIGGIMS no.26:62-76 '62. (MIRA 16:3)
(Ob' Valley--Petroleum geology) (Ob' Valley--Gas, Natural--Geology)

BLIZNICHENKO, S.I.; KRASNOVA, L.Ya.

Spores and pollen in the oils of the West Siberian Plain. Geol.
i geofiz. no.12:116-119 '64. (MIRA 18:6)

1. Sibirskiy nauchno-issledovatel'skiy inatitut geologii,
geofiziki i mineral'nogo syr'ya, Novosibirsk.

GURARI, F.G.; BLIZNICHENKO, S.I.

Nizhne-Vartovskoye arch, a large zone of oil and gas accumulation. Geol. nef'ti i gaza 8 no.8:8-14. Ag '64.

(MIRA 17:8)

1. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya.

BUSURIN, YA. A.; BLIZNICHENKO, V. A.

"Daghestan mountain breed of fine-wooled sheep," Sots. zhiv. 14 no. 8 Ag. 1952

Stalin prize winner (zootechnician)

BLIZNICHENKO, V.A.

Sheep - Daghestan

Work practice in developing the new Dagestanskaia Gornaia Breed of sheep
Dost. sel'khoz. no. 7, 1952

BLIZNICHENKO, V.A.

Direktor, Chokhskiy gosplemrassadnik Gunibskogo rayona Dagestanskoy ASSR
Dost. sel'khoz, no.7

Laureat Stalinskoy premii

BLIZNICHENKO, V.A.

Daghestan mountain breed of sheep
Priroda 41, no. 7, 1952

BLIZNICHENKO, V. A., Cand. Agri. Sci. (diss) "Dagestan Mountain
Breed of Sheep and Means for Their Improvement," Makhachkala,
1961, 27 pp. (North Ossetian Agri. Inst.) 150 copies (KL Supp
12-61, 279).

16(1)
 AUTHOR: Bliznikas, V.I. SOV/20-127-1-1/65
 TITLE: On the Theory of Curves in a Metric Space of Linear Elements
 PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 1, pp 9-12 (USSR)
 ABSTRACT: The author considers a space of linear elements with the given field of a symmetric covariant tensor of second order, the discriminant of which is different from zero. It is supposed that $g_{ij} u^i u^j$ is positive-definite. A one-parameter manifold of linear elements is understood by a curve of the considered metric space of linear elements. The locus of the centers of this manifold is denoted as centroid of the curve. Two cases are distinguished: The linear elements touch the centroids (centroidal curves) or they do not (non-centroidal curves). General formulas of the considered curves are given. The author applies the invariant analytic method of A.M. Vasil'yev [Ref 4] and the representation theory of infinite groups. The author thanks S.P. Finikov and G.F. Laptev for their valuable critical comments.

Card 1/2

On the Theory of Curves in a Metric Space of
Linear Elements

SOV/20-127-1-1/65

There are 6 references, 3 of which are Soviet, 1 German,
1 French, and 1 Hungarian.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova;
Vil'nyusskiy pedagogicheskiy institut (Moscow State University
imeni M.V. Lomonosov; Vil'nyus Pedagogical Institute)

PRESENTED: March 20, 1959, by P.S. Aleksandrov, Academician

SUBMITTED: March 13, 1959

Card 2/2

81172

1

S/020/60/132/04/01/064

16.5600

AUTHOR: Bliznikas, V.I.

TITLE: Congruence of Centroidal Geodesic Curves of the Metric Space of Line Elements

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 4, pp. 735-738

TEXT: The author develops the differential geometry of congruences of the centroidal geodesic curve of the metric space of line elements with an Euclidean connection the base space \mathcal{F}_3 of which is three-dimensional. The generalization of the fundamental notions of the classical theory of straight line congruences of the Euclidean E_3 are chiefly considered. The investigation uses the group theoretical method of G.F.Laptav (Ref.2) and has an invariant character. Since the Finsler space F_3 and the space of Euclidean connection V_3 (Riemannian space with torsion) are special cases of the \mathcal{F}_3 , the represented theory can be applied to the congruences of centroidal geodesic curves of the F_3 as well as to the congruences of the geodesic curves of the

Card 1/2

01179

Congruence of Centroidal Geodesic Curves of the S/020/60/132/04/01/064
Metric Space of Line Elements

V₃. The author uses earlier own results and notations (Ref.3). He thanks
S.P.Finikov for the leading of the work. There are 3 Soviet references.

ASSOCIATION: Vil'nyuskiy gosudarstvennyy pedagogicheskiy institut
(Vil'nyus State Pedagogical Institute)

PRESENTED: February 11, 1960, by P.S.Aleksandrov, Academician

SUBMITTED: February 9, 1960

Card 2/2

BLIZNIKAS, V. I. Cand Phys-Math Sci -- (uiss) "On the Geometry of
Metric Areas of Linear Elements," Moscow, 1960, 7 pp, 150 copies
(Moscow State Pedagogical Institute im V. I. Lenin) (KL, 46/60, 122)

BLIZNIKAS, V.I.; SHINKUNAS, Yu.I.

Third Conference of Mathematicians of the Lithuanian S.S.R.

Usp.mat.nauk 17 no.5:197-200 S-O '62.

(MIRA 15:12)

(Lithuania--Mathematics--Congresses)

BLIZNIKAS, V.I.

First Baltic Conference on Problems in Differential Geometry. Usp.
mat. nauk 18 no.6:231-239 '63. (MIRA 17:3)

BLIZNIKAS, V.I. (Vil'nyus)

Hypersurfaces of a generalized Riemann space. Izv. vys. ucheb.
zav.; mat. no.6:15-23 '64. (MIRA 18:3)

ACC NR: AP7008921

SOURCE CODE: UR/0140/66/000/005/0013/0024

AUTHOR: Dliznikas, V. I. (Vilnius)

ORG: none

TITLE: Linear differential-geometric connectivity of higher order in a space of support elements

SOURCE: IVUZ. Matematika, no. 5, 1966, 13-24

TOPIC TAGS: differential geometry, mathematics

SUB CODE: 12

ABSTRACT: B. L. Laptev introduced the concept of a space of support elements and developed the theory of Lie differentiation in a general space of support elements, while the author of the present article developed the theory of affine connectivity. In the present article the author finds the structure of differential-geometric objects with which it is possible to define a linear differential-geometric connectivity of higher order in a space of support elements. The article also finds various objects of curvature and generalized Ricci identities. Orig. art. has: 76 formulas. [JPRS: 39,658]

Card 1/1

UDC: 513.0

0929 1739

10708

S/079/60/030/05/42/074
B005/B016

5.3630

AUTHORS: Petrov, K. A., Maklyayev, F. L., Bliznyuk, N. K.

TITLE: Diphosphonates. I. Esters of Methylene Diphosphonic Acid 7

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1602-1608

TEXT: The authors of the present paper investigated the alkylation of sodium dialkyl phosphites with chloro-methyl-phosphinic esters (Michaelis-Becker Reaction). It was possible to clarify the side reactions which accompany this reaction. In some cases, the yield of alkylation products (tetraalkyl methylene diphosphonates) could be raised. When treating sodium diethyl phosphite with the diethyl ester of chloro-methyl-phosphinic acid, a considerable quantity of a solid substance which is not distillable, and substances with a lower boiling point than that of the diphosphonate result in addition to the corresponding diphosphonate. The authors indicated that the solid product is a mixture of the sodium salts of the esters of methylene diphosphonic acid, ethyl phosphinic acid, and chloro-methyl-phosphinic acid. The low-boiling liquid by-product mainly consists of the diethyl esters of ethyl- and chloro-methyl phosphinic

Card 1/3

Diphosphonates. I. Esters of Methylene
Diphosphonic Acid

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S/079/60/030/05/42/074
B005/B016

acid. The formation of these by-products is due to the alkylation of the sodium dialkyl phosphites by the resultant esters of the alkyl-phosphinic acids (Ref. 5). In a schematical survey, the equations for the formation of all possible products of reaction of sodium diethyl phosphite with the diethyl ester of chloro-methyl-phosphinic acid are summarized. This reaction was accomplished under considerably varied conditions. The separation of the reaction products encountered with great difficulties. The procedure of separation is described in detail. The yield in diethyl phosphonate was 30-50% depending on the reaction conditions, calculated for the initial sodium diethyl phosphite. The structure of the by-products is given. In some cases, the alkylation of sodium dialkyl phosphite by the product of the principal reaction, which represents a disturbing side-reaction, may be checked to a large extent by choosing suitable conditions; a complete elimination of this side reaction is hardly possible. The chloro-methyl-phosphinic esters which were used as initial products for the synthesis of methylene diphosphonates were obtained by esterification of the corresponding diacid chlorides with alcohols. By some modifications of the reaction conditions of a method described in publications (Ref. 7), the yield of the esterification could be increased to 90-95%. Table 1

Card 2/3

Diphosphonates. I. Esters of Methylene
Diphosphonic Acid

8070
S/079/60/030/05/42/074
B005/B016

presents 5 esters of chloro-methyl-phosphinic acid which have not yet been described. Boiling point, refractive index, density and molecular refraction are given for each ester. In an experimental part, all reactions performed are described in detail. In Table 2 yields and P- and Cl-contents are given for 4 esters from Table 1. A. Ye. Arbuzov is mentioned in the present paper. There are 2 tables and 7 references, 3 of which are Soviet. X

SUBMITTED: May 26, 1959

Card 3/3

80709
S/079/60/030/05/43/074
B005/B016

5.3630

AUTHORS: Petrov, K. A., Maklyayev, F. L., Bliznyuk, N. K.

TITLE: Diphosphonates. II. Synthesis of Esters of Ethylene- and Methyl Ethylene Diphosphonic Acid

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp. 1608-1614

TEXT: The authors of the present paper showed that the synthesis of esters of ethylene diphosphonic acid may be performed by means of the ~~Michaelis-Becker~~ reaction. All difficulties connected with the use of this reaction could be overcome by determining the optimum temperature range and the optimum order in mixing the reagents. On reaction of sodium dialkyl phosphites with 1,2-dihalogen alkanes, olefins only result at too high temperatures whereas at low temperatures mainly the corresponding diphosphonates are formed. The order observed when combining the reagents exerts considerable influence upon the direction of the reaction of sodium diethyl phosphite with 1,2-dichloro ethane. The best yield of the corresponding diphosphonate (57.5%) is obtained by adding slowly the benzenic solution of sodium diethyl phosphite to dichloro ethane heated to 50-55°.

Card 1/3

Diphosphonates. II. Synthesis of Esters of
Ethylene- and Methyl Ethylene Diphosphonic Acid

S/079/60/030/05/43/074
B005/B016

The chloro-ethyl phosphinic esters do not result in these reactions since the mobility of the halogen in these esters is higher than in the 1,2-dihalogen alkane. In the reaction of sodium diethyl phosphite with dichloro ethane, the diethyl ester of ethyl phosphinic acid and a mixture of salts of ethylene diphosphonic esters and ethyl phosphinic esters are obtained as by-products. The formation of these by-products is due to alkylation of sodium diethyl phosphite by the tetraethyl ester of ethylene diphosphonic acid which results as principal product of the reaction, or by the diethyl ester of ethyl phosphonic acid. The corresponding reaction schemes as well as the structural proof of these side-products are given. By the afore-mentioned alkylation of sodium dialkyl phosphites with dichloro ethane, also the tetraisopropyl ester of ethylene diphosphonic acid was synthesized which has not yet been described in publications. By the reaction of sodium dialkyl phosphites with allyl phosphonates in the presence of sodium alcoholates, esters of methyl ethylene diphosphonic acid were produced. The rate of this reaction does not so much depend on temperature but rather on the quantity of the alcoholate acting as a catalyst. Finally, esters of allyl phosphinic acid were formed by treating sodium dialkyl phosphites with allyl bromide. This reaction has

Card 2/3

Diphosphonates. II. Synthesis of Esters of Ethylene- and Methyl Ethylene Diphosphonic Acid S/079/60/030/05/43/074
B005/B016

been investigated previously (Ref. 8). By modification of some reaction conditions, the yield of this synthesis could be increased from 57 to 72.5%. In an experimental part, all syntheses performed are described in detail. In the present paper, M. I. Kabachnik (Ref. 7) is mentioned. There are 9 references, 7 of which are Soviet. X

SUBMITTED: May 26, 1959

Card 3/3

ACC NR: AP6029015

SOURCE CODE: UR/0413/66/000/014/0020/0020

INVENTOR: Kalutskiy, L. A.; Kolomiyets, A. F.; Bliznyuk, N. K.

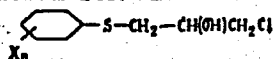
ORG: None

TITLE: A method for producing β -chloro- β' -arylthioisopropanols. Class 12, No. 183727 [announced by the All-Union Scientific Research Institute of Phytopathology (Vsesoyuznyy nauchno-issledovatel'skiy institut fitopatologii)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 20

TOPIC TAGS: aliphatic alcohol, alkyl radical, chlorinated aliphatic compound, organic sulfur compound

ABSTRACT: This Author's Certificate introduces: 1. A method for producing β -chloro- β' -arylthioisopropanols of the general formula



where X is a halogen, alkyl or alkoxy and $n=0-5$. The process consists of condensing thiophenol with epichlorohydrin at a high temperature followed by isolation of the product using an appropriate method, e. g. redistillation. The condensation is done in the presence of catalytic quantities of a tertiary amine at 60-100°C with subsequent distillation of the tertiary amine and excess epichlorohydrin to increase the product yield. 2. A modification of this method in which the condensation is done in an organic solvent, e. g. benzene.

SUB CODE; 07/ SUBM DATE; 25Sep65

Card 1/1

UDC; 547.569.14263.07

ALL NKI AP6029020

SOURCE CODE: UR/0413/66/000/014/0023/0023

INVENTOR: Bliznyuk, N. K.; Kolomiyets, A. F.; Strel'tsov, R. V.; Kvasha, Z. N.;
Varshavskiy, S. L.; Libman, B. Ya.

ORG: none

TITLE: Preparation of O-alkyl-S(β -acyloxy)ethyl thiophosphinates. Class 12, No. 183745. [announced by All-Union Scientific Research Institute of Phytopathology (Vsesoyuznyy nauchno-issledovatel'skiy institut fitopatologii)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 23

TOPIC TAGS: ~~alkylacyloxyethyl thiophosphinate synthesis~~, mercaptoethyl ester, carboxylic acid, phosphinic acid dichloride, *ORGANIC PHOSPHORUS COMPOUND*, *PHOSPHONIC ACID, ESTER*

ABSTRACT: In the proposed method, O-alkyl S(β -acyloxy)ethyl thiophosphonates of the general formula:
(where R and R' are alkyl, substituted alkyl, substituted aryl, or aryl; R'' is lower alkyl) are obtained by the reaction of β -mercaptoethyl carboxylates with a phosphonic ester chloride or with a mixture of phosphonic acid dichloride and an alcohol in organic solvents in the presence of HCl acceptors, e.g., tertiary amines. Orig. art. has: 1 formula.

[WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 28Jul65/
Card 1/1

UDC: 547.26'118.07

ACC NR: AP6029024

SOURCE CODE: UR/0413/66/000/014/0024/0024

INVENTOR: Bliznyuk, N. K.; Kvasha, Z. N.; Khokhlov, P. S.; Libman, B. Ya.; Beym, A. I.; Vershinin, P. V.

ORG: none

TITLE: Preparation of S,S-dialkyl dithiochlorophosphates. Class 12, No. 183752

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 24

TOPIC TAGS: insecticide preparation, dibutyl dithiochlorophosphate, butyl mercaptan, mercaptan, chlorinated organic compound, phosphate, pyridine

ABSTRACT:

To increase the yield in the preparation of S,S-dialkyl dithiochlorophosphates, e.g., S,S-dibutyl dithiochlorophosphate, by the treatment of alkyl mercaptans (e.g., butyl mercaptan) and pyridine with phosphoryl chloride, the reaction is conducted in the presence of ammonium salts of substituted polythiophosphonic acids, e.g., ammonium phenyl dithiophosphonate.

SUB CODE: 07/ SUBM DATE: 24May65

[WA-50; CBE No. 11]

Card 1/1

UDC: 547.419.1.07

ACC NR: AP6030549

SOURCE CODE: UR/0413/66/000/016/0030/0030

INVENTOR: Bliznyuk, N. K.; Kolomiyets, A. F.; Golubeva, R. N.; Varshavskiy, S. L.; Gladshetyn, B. M.; Zimin, V. M.

ORG: none

TITLE: Preparation of aryl esters of N-(β -chloroethyl)taurine. Class 12, No. 184840 [announced by All-Union Scientific Research Institute of Phytopathology (Vsesoyuznyy nauchno-issledovatel'skiy institut fitopatologii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 30

TOPIC TAGS: fungicide, ~~aryl chloroethyltaurinate preparation~~, hydroxyethyltaurine, thionyl chloride, phosphorus pentachloride, ester, hydroxide, ethylene

ABSTRACT: To obtain aryl esters of N-(β -chloroethyl)taurine with fungicidal properties, esters of β -hydroxyethyltaurine are treated with thionyl chloride or phosphorus pentachloride in an organic solvent (e.g., chloroform) at boiling temperature of the solvent. The excess of the initial reagents and HCl formed are removed from the reaction mixture; the residue is dissolved in an organic solvent, e.g., an ether, then mixed with alcoholic solution of an acid, and evaporated.

[WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 26Jul65/

Card 1/1

UDC: 547.436'26'122.07

ACC NR: AP6030565

SOURCE CODE: UR/0413/66/000/016/0034/0034

INVENTOR: Bliznyuk, N. K.; Kolomiyets, A. F.; Strel'tsov, R. V.; Varshavskiy, S. L.

ORG: none

TITLE: Preparation of β -mercaptoethyl esters of carboxylic acids. Class 12, No. 184862 [announced by the All-Union Scientific Research Institute of Phytopathology (Vsesoyuznyy nauchno-issledovatel'skiy institut fitopatologii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 34

TOPIC TAGS: mercaptoethyl carboxylate, alkyl mercaptoethyl carboxylate, aryl mercaptoethyl carboxylate, ~~halogenated alkyl mercaptoethyl carboxylate~~, ester, mercaptan, carboxylic acid

ABSTRACT:

To increase the yield of β -mercaptoethyl esters of carboxylic acids ($\text{RCOOCH}_2\text{CH}_2\text{SH}$, where R is an alkyl, haloalkyl, or aryloxyalkyl) from β -mercaptoethanol and the acids, the reaction is conducted with azeotropic removal of water in the presence of a catalyst, e.g., strong inorganic acids or phosphorus trichloride.

SUB CODE: 07/ SUBM DATE: 13Jul65

[WA-50; CBE No. 11]

Card 1/1

UDC: 547.29'262:122.07

ACC NR: AP6030567

SOURCE CODE: UR/0413/66/000/016/0035/0035

INVENTOR: Bliznyuk, N. K.; Kvasha, Z. N.; Khokhlov, P. S.; Libman, B. Ya.;
Vershinin, P. V.; Beym, A. I.; Mil'gotin, I. M.

ORG: none

TITLE: Preparation of S,S,S-trialkyl trithiophosphates. Class 12, No. 184864

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 35

TOPIC TAGS: ~~trialkyl trithiophosphate preparation~~, mercaptan, phosphoryl chloride,
phosphate, chemical reaction, phosphorus chloride

ABSTRACT:

To simplify the technological preparation of S,S,S-trialkyl trithio-
phosphates by the reaction of mercaptans with phosphoryl chloride,
the reaction is conducted in the presence of an ammonium salt of
substituted polythiophosphoric or polythiophosphonic acids as catalysts.

SUB CODE: 07/ SUBM DATE: 24May65

[WA-50; CBE No. 11]

Card 1/1

BLIZNYAK, N. V.

USSR/Chemistry - Radioactive Isotopes

11 Jan 53

"The Synthesis of 1-C¹⁴-Pentane and 3-C¹⁴-Pentane," A. F. Lukovnikov, M. B. Neyman, A. A. Bag, L. M. Rodionova, I. S. Samoukina, N. V. Bliznyuk

DAN SSSR, Vol 88, No 2, pp 297-300

1-C¹⁴-Pentane and 3-C¹⁴-Pentane were prepd by starting with BaC¹⁴O₃ which yielded tagged CO₂. This was then treated with the appropriate organo-Mg-halide. Presented by Acad N. N. Semenov 15 Nov 52.

PA 255T18

Bliznyak, N. V.

BAG, A.A.; SHORYGINA, N.V.; BLIZNYAK, N.V.

Preparation of phenyl propyl alcohol. Trudy VNIISNDV no.2:57-58
'54. (MIRA 10:7)

(Propyl alcohol)

BAG, A.A.; BLIZNYAK, N.V.

Production of phenylethyl alcohol by catalytic reduction of
the ester of phenylacetic acid. Trudy VNIISMDV no.4:63-65
' 58. (MIRA 12:5)

(Ethanol)

BLIZNYAK, N.V.; BAG, A.A., kand.tekhn.nauk

Selective hydrogenation of esters of unsaturated fatty acids
to corresponding unsaturated aliphatic alcohols. Masl.-shir.
prom. 25 no.10:25-27 '59. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh i natural'nykh dushistykh veshchestv.

(Acids, Fatty) (Alcohols) (Hydrogenation)

BAG, A.A.; BLIZNYAK, N.V.; BULANOVA, A.V.; KUSTOVA, S.D.; CHERKAYEV, V.G.

Odorous substances from sclareol. Report No.2: Possibility for converting the lactone 1,1, 6, 10-tetramethyl-6-oxy-5-methylene-carboxydecalin into 1, 1, 6, 10-tetramethyl-6-oxy-5 (β -oxy)-ethyldecalin by catalytic hydrogenation. Trudy VNIISNDV no.5: 14-16 '61. (MIRA 14:10)

(Odorous substances)

(Naphthalene)

CHERKAYEV, V.G., kand.tekhn.nauk; BAG, A.A., kand.tekhn.nauk; KONSTANTINOV,
A.A.; BLIZNYAK, N.V.

Preparation of a copper-chromium catalyst by the thermal treatment
of the copper ammonium salt of chromic acid pulverized in a gas
stream. Masl.-zhir.prom. 27 no.1:27-29 Ja '61. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh
i natural'nykh dushistykh veshchestv.
(Catalysts) (Chromium) (Copper)

TOVBIN, I.M., inzh.; PETROV, N.A., kand. tekhn. nauk; MAYOROV, D.M.,
kand. khim. nauk; STERLIN, B.Ia., kand. tekhn. nauk; NEVOLIN, F.V.;
VARLAMOV, V.S., kand. tekhn. nauk; CHERKAYEV, V.G., kand. khim.
nauk; BLIZNYAK, N.V., inzh.; ORECHKIN, D.B., kand. tekhn. nauk;
RADCHENKO, Ye.D., inzh.; SHEPOT'KO, O.F., inzh.

Obtaining higher unsaturated alcohols by the method of selective
hydrogenation of whale oil. Masl.-zhir. prom. 29 no.3:18-21
Mr '63. (MIRA 16:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimi-
cheskikh protsessov (for Mayorov). 2. Vsesoyuznyy nauchno-
issledovatel'skiy institut zhirov (for Sterlin, Nevolin,
Varlamov). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut
sinteticheskikh i natural'nykh dushistykh veshchestv (for
Orechkin, Radchenko, Shepot'ko).
(Whale oil) (Alcohols)

BLIZNYAK, V.V.

ALEKSEYEV, Nikolay Dmitriyevich; MARCHENKO, Taisiya Timofeyevna;
VOYTKEVICH, S.A., retsenzent; BLIZNYAK, V.V., retsenzent;
BIRKGAN, Yu.B., spetsredaktor; ~~KHMELE'NITSKAYA~~, A.Z., red.;
CHIBYSHOVA, Ye.A., tekhn.red.

[Engineering equipment for the production of essential and synthetic
oils, perfums and cosmetics] Tekhnologicheskoe oborudovanie efiro-
maslichnogo, sinteticheskogo i parfiumerno-kosmeticheskogo proiz-
vodstv. Moskva, Pishchepromizdat, 1957. 379 p. (MIRA 11:2)
(Perfumes, Synthetic) (Cosmetics)

BLIZNYAK, YE. V.

(Deceased)

Hydrology

See ILC

BLIZNYAKOV, Leonid Vasil'yevich; BRITKIN, A.S., prof., nauchn.
red.; SLAVNITSKAYA, N.N., red.izd-va; AZOVKIN, N.G.,
tekhn. red.

[Handbook for the mechanical engineer and the foreman of
a machine shop] Kratkii spravochnik tekhnologa-mashino-
stroitelia i mastera mekhanicheskikh tsekhov. Riazan',
Riazanskoe knizhn. izd-vo, 1963. 310 p. (MIRA 16:10)
(Machine-shop practice) (Metal cutting)

BLIZNYANSKIY, A.D.

BRAGINSKIY, A.G. [translator]; BLIZNYANSKIY, A.D., inzhener, redaktor;
KHITROV, P.A., tekhnicheskiy redaktor

[Diesel traction in rail transportation compared with steam and electric traction. Translated from the German] Dizel'naya tiaga na rel'sovom transporte; sravnenie s parovoi i elektricheskoi tiagoi. Perevod s nemetskogo A.G.Braginskogo. Moskva, Gos. transp. zhel-dor. izd-vo, 1956. 175 p. (MIRA 10:1)
(Diesel locomotives)

BLIZNIANSKII, A. S. ed.

Kratkii spravochnik mashinostroitel'ia. Moskva, Mashgiz, 1950. 487 p. diagrs.

Bibliography: p. 455-481.

Mechanical engineer's concise handbook.

DLC: TJ151.B65

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

BLIZNYANSKIY, A.S., inzhener.

Review of foreign periodicals. Vest.mash. 34 no.3:111-112 Mr '54.
(MLRA 7:4)

(Bibliography--Mechanical engineering)

(Mechanical engineering--Bibliography)

BLIZNYANSKIY, A.S.

FILIPPOV, V.V., kandidat tekhnicheskikh nauk; YEVVENKO, V.I., kandidat tekhnicheskikh nauk; SHLYKOV, Yu.P., kandidat tekhnicheskikh nauk, redaktor; BLIZNYANSKIY, A.S., inzhener, redaktor; KUTSENKO, S.M., kandidat tekhnicheskikh nauk, retsenzent; UVAROVA, A.F., tekhnicheskij redaktor

[Intake and outlet processes in steam engines] Protsessy vpuska i vypuska v parovykh mashinakh. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1955. 213 p., 11 nomograms

(Steam engines)

(MLRA 9:3)

BLIZNYANSKIY A.S.

SHIRMAN, A.N., inzhener; BLIZNYANSKIY, A.S.

New standard for locomotive piston rings. Standartizatsiia
no. 2:51-54 Mr-Ap '55. (MLBA 8:6)

1. Ministerstvo putey soobshcheniya
(Piston rings--Standards)

BLIZNYANSKIY, A.S., inzhener.

Locomotive construction abroad. Vest.mash. 35 no.9:79-86 S '55.
(Locomotives) (MLRA 9:1)

SEMICHASTNOV, Ivan Fedorovich, kandidat tekhnicheskoy nauk, dotsent;
SHISHKIN, K.A., professor, retsenzent; VOSHCHININ, A.I., doktor
tekhnicheskikh nauk, professor, retsenzent; BLIZNYANSKIY, A.S.,
inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskoy redaktor;
SOKOLOVA, T.F., tekhnicheskoy redaktor

[Hydraulic transmissions in diesel locomotives] Gidravlicheskie
peredachi teplovozov. Moskva, Gos. nauchno-tekhn. izd-vo mashino-
stroit. lit-ry, 1956. 191 p. (MLRA 9:10)

(Hydraulic transmission)

(Diesel locomotives--Transmission devices)

BLIZNYANSKIY, A.S., inzhener; CHERNUSHEVICH, V.A., inzhener.

"Handbook on materials for locomotive and railroad-car construction.
D.A. Veis and others. Reviewed by A.S. Bliznianskii, V.A. Chernushevich. Vest.mash. 36 no.10:85-88 0 '56. (MLRA 9:11)

1. Zamestitel' predsedatelya Tekhnicheskogo soveta Ministerstva
transportnogo mashinostroyeniya (for Chernushevich)
(Railroads--Rolling stock--Handbooks, manuals, etc.)
(Veis, D.A.)

~~B. I. LENYANSKIY, A. S.~~ inzhener, redaktor; SLOMYNSKIY, A. V., kandidat tekhnicheskikh nauk, retsenzent; MODEL', B. I., tekhnicheskiiy redaktor

[Problems in the construction, calculation and testing of locomotives; a collection of articles. Results of cooperation between the V.I. Lenin Polytechnical Institute in Kharkov and the Kharkov Transportation Machinery Manufacturing Plant] Voprosy konstruirovaniia, rascheta i ispytaniia teplovozov; sbornik. Itogi sodruzhestva Khar'kovskogo politekhnicheskogo instituta imeni V.I. Lenina i Khar'kovskogo soiuznogo ordena Lenina, ordena Trudovogo Krasnogo znamenii i ordena Krasnoi zvezdy zavoda transportnogo mashinostroeniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry. Vol. 2. 1957. 109 p. (MLRA 10:10)

1. Russia (1923- U.S.S.R.) Ministerstvo vysshego obrazovaniia.
(Locomotives)

BLIZNYANSKIY, A.S.

BOYKO, Fedor Ivanovich; SOLOGUBOV, V.N., doktor tekhnicheskoy nauk,
retsensent; BLIZNYANSKIY, A.S., inzhener, redaktor; SOKOLOVA, T.F.,
tekhnicheskoy redaktor

[Locomotives for industrial transportation] Parovozy promyshlennogo
transporta. Izd. 3-e, perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit. lit-ry, 1957. 262 p. (MIRA 10:7)
(Locomotives)

SHELEST, Pavel Alekseyevich, kand. tekhn. nauk.; PUL'MANOV, N.V., kand. tekhn. nauk.; BLIZNYANSKIY, A.S., inzh., red., DANILOV, L.N., red., EL'KIND, V.D., tekhn. red.

[Free piston gas turbines] Kombinirovannye turboporshnevye dvigateli.
Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 225 p.
(MIRA 11:10)

(Free piston engines)

TRET'YAKOV, A.P., kand.tekhn.nauk; BLIZNYANSKIY, A.S., inzh., red.;
SOPIANO, N.K., red.; PEREVERZEVA, T.A., tekhn.red.

[Modern powerful diesel locomotives, built in foreign countries]
Sovremennye moshchnye zarubezhnye teplovozy. Red.A.S.Bliznianskii.
Moskva, Vses.in-t nauchn.i tekhn.informatsii, 1959. 89 p.
(MIRA 13:3)

(Diesel locomotives)

YAKOBSON, Petr Vasil'yevich, kand.tekhn.nauk, laureat Stalinskoy premii;
BLIZNYANSKIY, A.S., inzh., red.; BOBROVA, Ye.N., tekhn.red.

[History of the diesel locomotive in the U.S.S.R.] Istorija
teplovoza v SSSR. Moskva, Vses.izdatel'sko-poligr.ob'edinenie
M-va putei soobshchenia, 1960. 209 p. (MIRA 13:11)
(Diesel locomotives)

SHISHKIN, Kirill Aleksandrovich, zasl. deyatel' nauki i tekhniki, prof.
[deceased]; GUREVICH, Abram Natanovich, kand. tekhn. nauk; STEPANOV, Aleksandr Dmitriyevich, kand. tekhn. nauk; PLATONOV, Yevgeniy Veniaminovich, kand. tekhn. nauk; BLIZNYANSKIY, Aleksandr Semenovich, inzh.; PIRIN, I.V., kand. tekhn. nauk, retsenzent; BASKENTSIYAN, A.A., inzh., red. izd-va; MODEL', B.I., tekhn. red.

[Soviet diesel locomotives] Soyetskie teplovozy. Izd. 4., perer. i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry Mashgiz, 1961. 480 p. (MIRA 14:9)
(Diesel locomotives)

UGAROV, I.P. inzh.; BLIZNYANSKIY, A.S., inzh.

Allow no delay in the construction of large gas turbine locomotives.
Elek. i tepl. tiaga 6 no. 12:6-8 D '62. (MIRA 16:2)
(Locomotives) (Gas turbines)

SEMICHASTNOV, I.F., doktor tekhn. nauk; GOLOVANOV, S.S., inzh.;
VOLOBOYEV, I.N., inzh., retsenzent; BLIZNYANSKIY, A.S.,
inzh., red.

[Selecting hydraulic torque converters and hydraulic
clutches for the hydraulic drive of diesel locomotives]
Vybor gidrotransformatorov i gidromuft dlia gidropere-
dach teplovozov. Moskva, Mashinostroenie, 1965. 198 p.
(MIRA 18:4)

100M STUDY GUIDE 100M STUDY GUIDE										PHYSICS AND PROPERTIES INDEX										100M STUDY GUIDE 100M STUDY GUIDE									
<div style="position: relative; height: 100px;"> 3A B 66 f </div>										<p>2033. On the Operation of a Cylindrical Diode with H.F. Anode Potential. G. Grünberg and A. Blumhuk. <i>Techn. Phys., U.S.S.R.</i> 8.1. pp. 3-18, 1933. <i>In German.</i>—In a previous paper [see Abstract 2064 (1934)] Grünberg has given the theory relative to a tube with cylindrical electrodes and constant anode potential on which is superimposed a smaller variable component. When the variable component is of irregular wave form calculations are, in general, very complex, but when the variable component is sinusoidal the calculations are much simplified. In this case it is shown that the tube current is made up of one part which is independent of the frequency and a sinusoidal component of the same frequency as that of the variable component of the anode potential.</p> <p style="text-align: right;">A. W.</p>										<div style="position: relative; height: 100px;"> 3A B 66 f </div>									
ASS. S. A. METALLURGICAL LITERATURE CLASSIFICATION										100M STUDY GUIDE										100M STUDY GUIDE									
100M STUDY GUIDE										100M STUDY GUIDE										100M STUDY GUIDE									

BLIZNYUK, A.A., inzh.

Disposition of protection devices for the circuits of theater auto--
transformers. Svetotekhnika 5 no.3:26 Mr '59. (MIRA 12:3)
(Lighting, Architectural and decorative--Equipment and supplies)

BLIZNYUK, A. A., insh.

Installation and repair of lighting fixtures in the Palace of Culture and Science in Warsaw. Svetotekhnika 6 no.11:8-10 N '60.

(NIRA 13:11)

1. Gosudarstvennyy proyektnyy institut "Sverdloblproyekt."
(Warsaw--Community centers--Lighting)

BLIZNYUK, B.A.

Difficulties occurring in testing electric meters. Izv.tekh. no.12:
52-53 D '61. (MIRA 15:1)

(Electric meters--Testing)

BLIZNYUK, F.

New technique for heating soldering bits. Avt.transp. 35 no.6:34
Je '57. (MIRA 10:7)

(Solder and soldering)

BLIZNYUK, G.

Fighting for cheaper coal. . Mast. ugl. 7 no.10:13-14 0 '58. :

(MIRA 11:11

1. Zaveduyushchiy promyshlennym otделom rayonnoy gazety "Gornyak
severa."

(Coal--costs)

BLIZNYUK, I.D.

Transmission of opisthorchosis among carnivorous domestic
animals. Vrach.delo no.3:311 Mr '59. (MIRA 12:6)

1. Kafedra epidemiologii (zav. - deystv.chlen AMN SSSR, prof.
L.V.Gromashevskiy) Kiyevskogo meditsinskogo instituta.
(LIVER FLUKES)

BLIZNYUK, I.D.

Case of opisthorchosis. Vrach.delo no.7:751-753 J1 '59.

(MIRA 12:12)

1. Kafedra epidemiologii (zav. - deystvitel'nyy chlen AMN SSSR,
prof. L.V. Gromashevskiy) Kiyevskogo meditsinskogo instituta.
(LIVER FLUKE)

BLIZNYUK, I.D.

Infestation of Dnieper fish in the Kiev area by metacercaria of
Opisthorchis felinus. Vop.pit. 19 no.4:81-82 J1-Ag '60.

(MIRA 13:11)

1. Iz kafedry epidemiologii (zav. - deystvitel'nyy chlen AMN SSSR
prof. L.V. Gromashevskiy).

(FISH--DISKASES)

(TAPEWORMS)

BLIZNYUK, I. D., CAND MED SCI, "OPISTORCHOSIS IN KIEV AND
ITS ENVIRONS." DNEPROPETROVSK, 1961. (MIN OF HEALTH UKSSR.
KIEV ORDER OF LABOR RED BANNER MED INST IMENI A^CAD A. A. Bo-
GOMOLETS). (KL-DV, 11-61, 227).

-239-

BLIZNYUK, Ivan, brigadir montazhnikov, zaslushennyy stroitel' RSFSR

~~_____~~
A high position on earth. Na stroi. Ros. 3 no.10:36 0 '62.
(MIRA 16:6)

1. Trest Kuznetskzhilstroy upravleniya Sibmetallurgstroy.
(Novokuznetsk—Construction industry)

10:36
0 '62

BLIZNYUK, M.M.; FILIPPOV, S.N. (stantsiya Yudino, Kazanskoy dorogi)

Derailing guard rail. Put'i put.khoz. 4 no.7:23 J1 '60.
(MIRA 13:7)

(Railroads--Rails)

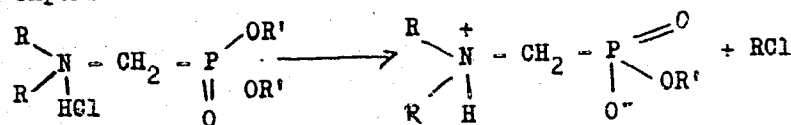
SOV/79-29-2-49/71

AUTHORS: Petrov, K. A., Maklyayev, F. L., Bliznyuk, N. K.

TITLE: Synthesis of the Acid Esters of Dialkylaminoalkyl Phosphonic Acids
(Sintez kislykh efirov dialkilaminoalkilfosfonovykh kislot)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 588-591 (USSR)

ABSTRACT: In the present paper some hydrohalides of the aminomethyl phosphonates were synthesized and their conversion into the inner salts was performed by a simple method. This conversion is carried out by a thermal cleavage of the hydrochlorides of dialkylaminoalkyl phosphonates. The hydrochlorides of dialkylaminomethyl phosphonates separate no alkyl halides and alkenes at the expense of the dealkylation of the amino group, in contrast to those of the amines in the thermal cleavage, and are transformed into inner salts of the dialkylaminoalkyl phosphonates under separation of alkyl halide at the expense of the chlorine ion and the radicals of the ester groups.



Card 1/2

SOV/79-29-2-49/71

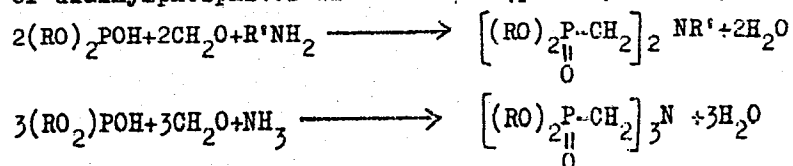
Synthesis of the Acid Esters of Dialkylaminoalkyl Phosphonic Acids

Thus, e.g. in the cleavage of diethylaminomethyldiethyl phosphonate ethyl chloride is quantitatively separated under formation of the monoethyl ester of diethylaminomethyl phosphonic acid in crystalline state. The process of separation of the alkyl groups is shown e.g. in the case of thermal cleavage of the hydrochlorides of the neutral esters of dialkylaminomethyl phosphonic acids with different alkyls at the phosphonium and nitrogen atom (Scheme 2). Similar results were obtained also in the thermal cleavage of the hydrochlorides of the diethyl ester of dimethylaminomethyl phosphonic acid (Scheme 3). The aqueous solutions of the monoesters react neutrally, which indicates their special structure. The fluohydrate of the neutral esters of dialkylaminomethyl phosphonic acid are, in contrast to the hydrochlorides, thermally stable compounds. The hydrochlorides and hydrofluorides of dialkylaminomethyl phosphonates were obtained by the action of gaseous hydrohalides on the esters solved in organic solvents.- There are 6 references, 5 of which are Soviet.

SUBMITTED: December 10, 1957

Card 2/2

1
 SOV/79-29-2-50/71
 AUTHORS: Petrov, K. A., Maklyayev, F. L., Bliznyuk, N. K.
 TITLE: Synthesis of Aminodi- and Aminotriphosphonates
 (Sintez aminodifosfonatov i aminotrifosfonatov)
 PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 591-594 (USSR)
 ABSTRACT: In completion of earlier syntheses of the aminophosphonates (Refs 1-4) the synthesis of aminodi- and aminotriphosphonates was carried out in this paper according to that of aminomonophosphonates by reaction of dialkylphosphites with ammonia (primary amines) and formaldehyde:



The authors varied the ratios of the reagents and the reaction conditions. E.g. in treating a mixture of dibutylphosphite and methylamine (2:1 mol) with the calculated amount of formaldehyde solution the bis-(dibutylphosphonium) trimethylamine formed in a yield of 75 %. In the action of formaldehyde on a mixture of phosphite and

Card 1/2

Synthesis of Aminodi- and Aminotriphosphonates

SOV/79-29-2-50/71

aqueous solution of ammonia the bis-(dialkylphosphonium)dimethyl and tri-(dialkylphosphonium)trimethylamine forms. The reaction in aqueous solution leads to partial saponification of the initial phosphite, which unfavorably influences the yield and separation of the final products. The reaction mixture must be distilled over in vacuum in a pure state, free from acid components, otherwise the aminodi- and aminotriphosphonates would decompose. After the reaction the mixture must be neutralized with alkali lye in order to extract the formed aminophosphates with organic solvents, which takes place without decomposition. The pure aminophosphates are easily distillable and thermally stable. Aminopolyphosphonates are equally stable in hydrolysis. The properties of the synthesized compounds are listed in a table. The neutral esters of the corresponding aminopolyphosphonic acids may be employed like diphosphonates as heat-resistant lubricants, plasticizers, and hydraulic liquids.- There are 1 table and 7 references, 5 of which are Soviet.

SUBMITTED: December 10, 1957

Card 2/2

5(3)

SOV/79-29-5-17/75

AUTHORS:

Petrov, K. A., Bliznyuk, N. K., Burygin, V. Ye.

TITLE:

On the Reaction of Phosgene With Trialkyl-Phosphites (O reaktsii fosgena s trialkilfosfitami)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 5, pp 1486 - 1491 (USSR)

ABSTRACT:

It was demonstrated in the present paper that the reaction of chloro phosphoric acid esters with trialkyl phosphites is similar to the reaction of Arbuzov where the alkyl chloride is separated and the ester of the diphosphonic acid with a P-P-bond is formed. The diphosphonates with a P-P-bond are unstable substances. During distillation they are frequently cleaved and yield esters of the alkyl-phosphinic acid and metaphosphates. Such a cleavage even takes place in the low absolute pressure. The purely prepared ester of the alkyl phosphinic acid was hydrolyzed to the alkyl-phosphinic acid. The latter was transformed into its aniline salt. With water the diphosphinate decomposes. The reaction products reduce the mercuric chloride to mercurous chloride. Probably the P-P-bond breaks during the hydrolysis, with phosphite and phosphate thus being formed. The ester of the diphosphinic acid with

Card 1/2

On the Reaction of Phosgene With Trialkyl-Phosphites

SOV/79-29-5-17/75

a P-P-bond is readily splitted by chlorine and sulfuryl chloride and dialkyl-chloro phosphate is formed. Dialkyl-chloro phosphates were prepared in a pure condition, analyzed and converted to the anilides of the dialkyl-phosphoric acid. The reaction of chloro-phosphoric acid esters with phosphites was investigated on dimethyl and diethyl-chloro phosphoric acid esters with trimethyl and triethyl-phosphites, respectively. There are 10 references, 6 of which are Soviet, and 1 Polish.

SUBMITTED: March 6, 1958

Card 2/2

Близныук, Н. К.

5/079/501020/20. 5/078
5005/2315

5127/5042
5/35/610/5

1997

1997

Polys, X. L., Zolys, Z. L., Williams, J. A.
The Synthesis of Esters of Nitrobenzoic Acid
The Synthesis of Esters of Nitrobenzoic Acid
The Synthesis of Esters of Nitrobenzoic Acid
The Synthesis of Esters of Nitrobenzoic Acid

Journal of the American Medical Association, 1950, Vol. 23, No. 5, pp. 16-17.

[illegible]

Card 1/3

The ethere-ethyl phosphinic esters do not react in these reactions unless the mobility of the hydrogen in these esters of sodium dialkyl phosphite with 1,2-dichloroethane is hindered. The reaction of sodium dialkyl phosphite with 1,2-dichloroethane, the diethyl ester of ethyl phosphinic acid and a mixture of diethers ethane, the diethyl ester of ethyl phosphinic acid and a mixture of salts of sodium dihydrophosphic esters and ethyl phosphinic esters are catalyzed by by-products. The formation of these by-products is due to the alkylation of sodium dialkyl phosphite by the tetraethyl ester of ethylene dihydrophosphic acid which results as principal product of the reaction, or by the diethyl ester of ethyl phosphinate of these side-producting reaction schemes as well as the structure of sodium dialkyl phosphates are given. By the above-mentioned alkylation of sodium dialkyl phosphates with diethers ethane, alcohols which has not yet been described in publications and was synthesized from sodium dialkyl phosphites with allyl phosphonates, the reaction of sodium dialkyl phosphites with allyl phosphonates proceeds. By the reaction of sodium alcoholates, esters of acetyl esters and phosphinic acids were produced. The rate of this reaction does not so much depend on temperature but rather on the quantity of the carbonyl compound acting as a catalyst. Finally, esters of allyl phosphinate and carbonyl compounds formed by treating sodium dialkyl phosphites with allyl bromide. This reaction has

Case 2/3

Card 2/3

conditions, the yield of this synthesis could be increased from 57 to 75-80% in an experimental part all syntheses performed are described in detail. In the present paper, V. I. Kabanik (Ref. 7) is mentioned.

the present paper, which are Soviet.

DATE: May 26, 1959

Case 3/3

01237

S/079/60/030/06/05/009
B002/B016

5.3630

AUTHORS: Petrov, K. A., Maklyayev, F. L., Bliznyuk, N. K.

TITLE: Diphosphonates. 3. Synthesis of O- and S-Bisphosphonates

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 6, pp. 1960-1964

TEXT: In the present paper the synthesis of compounds of the type $[(RO)_2P(O)(CH_2)_n]_2O$ and $[(RO)_2P(O)(CH_2)_n]_2S$ is described. So far, there are but little data available on it, since its complete performance has met with difficulties. It is generally based on an alkylation of diethyl sodium phosphite by means of dichloro and dibromo-dimethyl ethers. The resultant precipitate is difficultly separated from the solution, but a distillation without preceding separation involves further interaction of the NaCl or NaBr salts formed in the reaction with the diphosphonate, in which connection the disodium salts of the ethers result. The formation of these sodium salts is confirmed by the alkylation reaction (Refs. 1,2,5) of sodium dialkyl phosphites by means of esters of alkyl phosphinic and diphosphinic acids, which was already known to the

Card 1/3

Diphosphonates. 3. Synthesis of O- and S-Bisphosphonates

127
S/079/60/030/06/05/009
B002/B016

authors. The synthesis of the O- and S-diphosphonates is now studied on the reaction of sodium dialkyl phosphites with dichloro-dimethyl- and β, β' -dichloro-diethyl ethers, further with dichloro-dimethyl- and β, β' -dichloro-diethyl sulfides. In all cases the esters of the diphosphonic acid were obtained. The afore-mentioned difficulties when separating the reaction product were eliminated by adding so much water, that the resultant salt is dissolved. The purely organic layer was washed out with alkali and water. To prevent decomposition after the distillation, the latter must be performed on a small quantity of anhydrous Na_2CO_3 or K_2CO_3 . X

The resultant O- and S-bisphosphonates represent high-boiling, thermostable, viscous liquids which are not or only sparingly soluble in water, but well soluble in organic solvents. The properties of the compounds synthesized are presented in the table. The following compounds were obtained: Bis(diisopropyl phosphono)dimethyl ether, yield 70%; bis(dibutyl-phosphono) dimethyl ether, 69.3%; bis(diisopropyl-phosphono) diethyl ether, 37.8%. By slowly adding Chlorex during the latter reaction, the yield could be increased up to 57.2%. Bis(dibutyl-phosphono)-

Card 2/3

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Diphosphonates. 3. Synthesis of O- and
S-Bisphosphonates

S/079/60/030/06/05/009
B002/B016

diethyl ether, 46.8%, and the corresponding sulfides with the yields:
bis(diethyl-phosphono)dimethyl sulfide 57%, bis(dibutyl-phosphono)dimethyl
sulfide 50.8%, the tetraethyl ester of diphosphono-dimethyl sulfide 71%,
bis(diisopropyl-phosphono)diethyl sulfide 39.5%, and bis(dibutyl-
phosphono)diethyl sulfide 35.2%. There are 1 table and 6 references:
5 Soviet and 1 American. ✓

SUBMITTED: May 26, 1959

Card 3/3

S/079/60/030/006/025/033/XX
B001/B055AUTHORS: Petrov, K. A., Bliznyuk, N. K., and Lysenko, T. N.TITLE: Reaction of Sodium Dialkyl-phosphites¹ and Sodium
Monoalkyl-phosphonates With Alkyl Magnesium HalidesPERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 6,
pp. 1964 - 1968

TEXT: Dialkyl-phosphinic acids of the type $RR'P(O)OH$ have scarcely been investigated, since their synthesis is rather difficult. Of the various known methods for their synthesis, the authors selected the one by G. M. Kosolapoff (Ref.1), which involves the reaction of Grignard reagents with dialkyl-phosphites and subsequent oxidation of the resulting dialkyl-phosphinoxides (Refs. 2,3). When studying the reaction, the authors had to employ a large excess of the above reagent, and found that dialkyl-phosphites split up the alkyl magnesium halide into the corresponding hydrocarbon: according to Scheme 1:

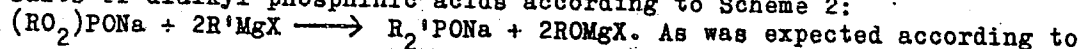
$$(RO)_2P(O)H + 3R'MgX \longrightarrow R'_2POMgX + R'H + 2ROMgX.$$

Thus, the authors

Card 1/3

Reaction of Sodium Dialkyl-phosphites and Sodium Monoalkyl-phosphonates With Alkyl Magnesium Halides S/079/60/030/006/025/033/XX B001/B055

obtained 60% butane in the reaction of diethyl-phosphite with butyl magnesium bromide according to Kosolapoff. To avoid this inexpedient waste of organomagnesium compound, the authors used the sodium salts of dialkyl-phosphites instead of the free acids, since the former do not split up the organomagnesium compound and dialkyl-phosphinic acids are formed. Alkyl magnesium halides with sodium dialkyl-phosphites form salts of dialkyl phosphinic acids according to Scheme 2:



As was expected according to the reaction by Michaelis-Becker, treatment of the reaction product obtained from sodium diethyl-phosphite and hexyl magnesium bromide with methyl iodide gave a precipitate of methyl-diethyl-phosphin oxide. Alkylation of the mixed magnesium alcoholate evidently occurs as a side reaction: $ROMgX + CH_3I \longrightarrow ROCH_3 + MgXI$. The reaction of dialkyl-phosphites and their salts with Grignard reagents is a convenient method of synthesizing dialkyl-phosphinic acids, but gives only acids with two equal alkyl groups. With a view to obtaining a generally applicable

Card 2/3

Reaction of Sodium Dialkyl-phosphites and
Sodium Monoalkyl-phosphonates With Alkyl
Magnesium Halides

S/079/60/030/006/025/033/XX
B001/B055

method for the synthesis of these acids, the authors studied the reaction of the etherates of alkyl-phosphinic acids (Ref.5, Scheme 6) with ethyl magnesium bromides, which is, however, very difficult and gives low yields (Ref.4). There are 1 table and 6 references: 2 Soviet and 4 US.

SUBMITTED: June 15, 1959

Card 3/3

S/079/60/030/009/007/015
B001/B064

AUTHORS: Petrov, K. A., Bliznyuk, N. K., Korotkova, V. P.
TITLE: Reaction of the Acid Chlorides of Phosphoric Acid and
Alkyl Phosphinic Acids With Alkyl Magnesium Bromides ¹
PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 9,
pp. 2995-2999

TEXT: Proceeding from the papers of Refs. 1-6 that deal with the smooth formation of the trialkyl phosphine oxides from phosphorus oxychloride and organo-magnesium compounds (Scheme 1), the authors tried to increase the yields of dialkyl phosphinic acids. They showed that the reaction of the acid chlorides of the pentavalent phosphoric acids with alkyl magnesium bromides does not come to an end, and found the reasons why. Also in the case of longer boiling of the acid chloride with excess organo-magnesium compound a certain amount of dialkyl phosphinic acid forms besides phosphine oxide. The yield of the mentioned acid increases considerably if alkyl magnesium halides of isostructure are used. Thus, according to Ref. 1 the reaction of phosphorus oxychloride with n-butyl

Card 1/3

Reaction of the Acid Chlorides of Phosphoric S/079/60/030/009/007/015
Acid and Alkyl Phosphinic Acids With Alkyl B001/B064
Magnesium Bromides

magnesium bromide gives rise to 50-60% tri-n-butyl phosphine oxide and 15-25% di-n-butyl phosphinic acid. Under the same conditions, except for the use of isobutyl magnesium bromide, the oxide yield is reduced to 25-30%, and that of the acid increased to 30.5%. Apparently, the authors of Ref. 1 regarded the mixture of trialkyl phosphine oxide and dialkyl phosphinic acid as pure oxide. The formation of considerable amounts of dialkyl phosphinic acids besides the oxides in the Grignard reaction may be explained by the fact that the intermediate products (the chloro phosphonates) react with magnesium halides and pass over into the complexes $R_2P(O)Cl \cdot MgXCl$ that are insoluble in ether and which in turn react difficultly under heterogeneous conditions with the alkyl magnesium halides. This circumstance permits stopping most of the reaction during the intermediate stage and thus to obtain the dialkyl phosphinic acids and their derivatives. On treating phosphorus oxychloride or the acid dichloride of methyl phosphinic acid with alkyl magnesium bromides, in the molar ratio 1 : 2 and 1 : 1, with subsequent hydrolysis, dialkyl phosphinic acids were obtained in approximately the same yields as in the blocking

Card 2/3

Reaction of the Acid Chlorides of Phosphoric S/079/60/030/009/007/015
Acid and Alkyl Phosphinic Acids With Alkyl B001/B064
Magnesium Bromides

of the chlorine atom with pyridine (Ref. 6) (Scheme 2). On treating the above complex with alcohol in the presence of triethyl amine the ester of dialkyl phosphinic acid is obtained in good yields (Scheme 3). The reaction of alkyl dichloro phosphates and acid chloride esters of methyl phosphinic acid with Grignard reagents gave rise to esters of dialkyl phosphinic acids (Table) (Scheme 4). There are 1 table and 7 references: 1 Soviet, 5 US, and 1 German.

SUBMITTED: August 13, 1959

Card 3/3

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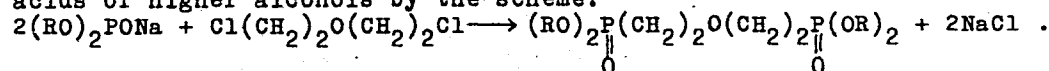
S/079/60/030/012/018/027
B001/B064

AUTHORS: Maklyayev, F. L., Bliznyuk, N. K., and Yeremin, G. I.

TITLE: Diphosphonates. IV. Synthesis of the Tetraalkyl Esters of Some Diphosphonic Acids

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 12, pp. 4053 - 4055

TEXT: The authors synthesized tetraalkyl esters of the diphosphonic acids of higher alcohols by the scheme:



A solution of sodium dialkyl phosphite in toluene was added to the dichloro diethyl ester heated to 90°C. The reaction byproducts were separated by washing out the reaction mixture with alkali lye and water, and the esters of alkyl phosphinic acids were separated by heating the product in high vacuum. The diphosphonates obtained are high-boiling viscous liquids, crystallizing between 14 and 22°C, and readily soluble in organic solvents. Only $[(\text{iso-C}_5\text{H}_{11}\text{O})_2\underset{\text{O}}{\underset{\parallel}{\text{P}}}\text{CH}_2\text{CH}_2]_2\text{O}$ and

Card 1/2

Diphosphonates. IV. Synthesis of the Tetra-
alkyl Esters of Some Diphosphonic Acids

87533
S/079/60/030/012/018/027
B001/B064

$[(n-C_6H_{13}O)_2PCH_2CH_2]_2O$ can be distilled, The thermal decomposition of

the diphosphonates by heating at 290° during five months, proceeded under the formation of the respective unsaturated hydrocarbons and increase of the acidity of the radical. The degree of decomposition of di-phosphonate was determined by titration with 0.1 N alkali lye, before and after heating. The dialkyl phosphites of the higher alcohols which are used as initial products, were obtained by data of B. A. Arbuzov (Ref.7). With the use of a solvent and by removing the HCl from the reaction sphere by bubbling with dry air, it was possible to raise the dioctyl phosphite yield to between 45 and 81% and the dinonyl phosphite yield to 83%. There are 1 table and 8 references: 5 Soviet, 2 US, and 1 British.

PRESENTED: February 2, 1960

Card 2/2

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87534
S/079/60/030/012/019/027
B001/B064

AUTHORS: Petrov, K. A., Maklyayev, F. L., Neymysheva, A. A., and
Bliznyuk, N. K.

TITLE: Synthesis of N-Chloro Phosphamides

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 12,
pp. 4060 - 4064

TEXT: The authors synthesized various N-chloro phosphamides and developed a general method. The initial phosphamides were obtained by reacting the amine with the corresponding acid chlorides in ether or chloroform (Refs.2-4). Table 1 lists the constants of the hitherto unknown initial phosphamides. The substitution of chlorine for the hydrogen atoms in the alkyl amide group of phosphamide took place under the action of an excessive alkaline solution of sodium hydrochlorite upon the chloroform solution of the respective phosphamide. The dichloro amides were obtained by chlorination of phosphamide with gaseous chlorine in the presence of sodium acetate or zinc oxide in carbon tetrachloride. The N-chloro phosphamides are obtained by extracting the reaction mass

Card 1/3

Synthesis of N-Chloro Phosphamides

87534
S/079/60/030/012/019/027
B001/B064

with chloroform or CCl_4 , by drying the extracted product, and thorough removal of the solvent at room temperature in vacuum (without subsequent distillation). The diphenyl amido phosphate which is insoluble in water and CCl_4 , was chlorinated with gaseous chlorine in a mixture of CCl_4 and water (1 : 2) in the presence of an excess of sodium acetate. All N-chloro phosphamides have a strong odor, yellowish liquids, soluble in organic solvents (some of them in water). Under the action of a chloroform solution of N-chloro phosphamide upon a potassium iodide solution in acetic acid medium, iodine is quantitatively separated, which is titrated with hyposulfite; thus, it is possible to determine active chlorine. N-chloro phosphamides (derivatives of methyl phosphinic acid) proved to be the least stable. They decompose already after 24 h, the content of active chlorine being reduced by 1-2%. N-chloro methyl-amido diphenyl phosphate in which the chlorine content did not change during 25 days, proved to be the most stable. The content of active chlorine in N-dichloro dimethyl diamido phenyl phosphate was reduced by 3% within 30 days. The constants of the N-chloro phosphamides are given in Table 2. V. I. Vityukin (1956), V. M. Grigor'yev (1957), and O. A. Pan'shin (1957)

Card 2/3

Synthesis of N-Chloro Phosphamides

87534
S/079/60/030/012/019/027
B001/B064

took part in the experiments. There are 2 tables and 4 references:
1 Soviet, 1 US, 1 British, and 1 German.

SUBMITTED: February 15, 1960

Card 3/3

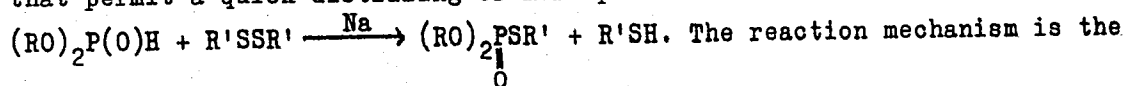
S/079/61/031/001/016/025
B001/B066

AUTHORS: Petrov, K. A., Bliznyuk, N. K., and Mansurov, I. Yu.

TITLE: Reactions of Acid Phosphites, Thiophosphites, Phosphonites, and Dialkylphosphine Oxides With Disulfides

PERIODICAL: Zhurnal obshchey khimii, 1961, Vol. 31, No. 1, pp. 176 - 179

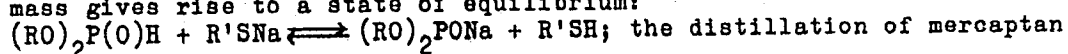
TEXT: Following their study in Ref. 1 on the reaction of sodium dialkylphosphites with disulfides the authors found that disulfides react with acid phosphites, thiophosphites, phosphonites, and dialkylphosphine oxides in the presence of catalytic quantities of metallic sodium (in some cases even without it) giving the corresponding thiol derivatives. The corresponding thiophosphate can be obtained nearly quantitatively by allowing an equimolecular mixture of acid phosphite and dialkyl disulfide to react with a small quantity of Na (0.1 - 0.3 mole%) under conditions that permit a quick distilling of mercaptan: ✓



Card 1/3

Reactions of Acid Phosphites, Thiophosphites, S/079/61/031/001/016/025
Phosphonites, and Dialkylphosphine Oxides With B001/B066
Disulfides

following: when the above mixture is treated with catalytic Na, dialkylphosphite forms a salt which reacts with the disulfide according to the above equation; the presence of phosphite and mercaptide in the reaction mass gives rise to a state of equilibrium:



from the reaction mass shifts the equilibrium to the right. The reaction proceeds more smoothly, if the resultant mercaptan has a low boiling point, and is rendered difficult if the boiling points are close to each other. Dialkyl thiophosphites readily react with disulfides even with small sodium admixtures, and give dithiophosphates. Monoalkylphosphonites (which are less acid) also react smoothly with disulfides to form thiophosphonates. Dialkylphosphine oxides which have no acid properties but are suitable reducing agents, give thiophosphonates in fair yield without Na: $R_2P(O)H + R'SSR' \longrightarrow R_2P(SR') + R'SH$. The reactions of disulfides with

acid phosphites and phosphonites are determined by the acidic and reducing properties of the latter. There are 1 table and 5 references:

Card 2/3